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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,257	06/16/2000	Wendi L. Nusbicke1	6169-155	3198

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EXAMINER

CAO, DIEM K

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 03/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/596,257

Applicant(s)

NUSBICKEL, WENDI L.

Examiner

Diem K Cao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is in response to Application filed on 6/16/2000.
2. Claims 1-16 are presented for examination.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-5, 9-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riehle (The Event Notification Pattern – Integrating Implicit Invocation with Object-Orientation).

As to claim 1, Riehle teaches (pages 4-9) a Notifier object (Subject object, StateChange object), a Notifier class (Subject class, StateChange class), list of Listener objects (Observer objects), a Listener class (Observer class), events (event), the Listener object defines a method (operation) to be called when the occurrence of the event (provides the event stubs ... in case of invocation; page 6), the Listener objects enabled to be callable from the Notifier object (A state change object distributes ... an observer), a Listener object stub for the Listener object (EventStub), the Listener object stub configured to be added to the list of Listener objects in the Notifier object (StateChange offers ... via event stub object), the Listener object stub further configured to remotely call the defined method in the Listener object (An event stub forward ... an observer) in response to receiving notification of an event from the Notifier object (A StateChange object distributed ... to all its event stubs), upon the event occurrence, the Notifier

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object traverse the list of Listener objects and can notify the Listener object stub thereby creating a remote call to the defined method in the Listener object (If a subject changes its state ... to all its event stubs).

However, Riehle does not explicitly teach the Notifier object in a client application for execution in a first process address space and the Listener object in a server application for execution in a second process address space. Riehle teaches the Event Notification Pattern can be used in the object-oriented distributed system (Both the Event Notification ... distributed system ... different respects; page 1).

It would have been obvious to one of ordinary skill in the art to modify the teaching of Riehle and apply to the distributed system because distributed system is well support for big project.

**As to claim 2**, Riehle does not explicitly teach the Notifier and the Listener classes are Java classes, and the first and second process address spaces are in the first and second Java Virtual Machine. Riehle teaches the Event Notification Pattern can be apply to object-oriented distributed system (Both the Event Notification ... distributed system ... different respects; page 1). It would have been obvious to use Java language to the system of Riehle because Java is neutral platform programming language, and inherently, the client and server application are executed in different process spaces in the Java Virtual Machine.

**As to claims 4, 9, and 12**, they correspond to the method claim of claim 1, except they are method for performing location transparent event handling and computer product for establish and performing location transparent event handling, respectively.

**As to claims 5, 10, and 13**, see rejection of claim 2 above.

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5. Claims 3, 6-8, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riehle (The Event Notification Pattern – Integrating Implicit Invocation with Object-Orientation) in view of OMG (COM/CORBA Interworking RFP – Part A) further in view of Sun Microsystems (Remote Method Invocation Specification).

As to claim 6, Riehle does not explicitly teach the Listener object stub is generated in an RMI compilation process. Riehle teaches the Listener object is the owner of the Listener object stub (An event stub ... its owner, an observer; page 6), and the forwarding process might be implemented using a remote procedure call (A class IACEventLink ... boundaries; page 8). OMG teaches a CORBA object can subscribe to and handle events through its CORBA proxy, and the CORBA proxy relays the event back to the real CORBA object (When the Subscribing Object is a CORBA object section; page 49). Sun teaches the object stub is generated in an RMI compilation process (Stubs are generated using the rmic compiler; Type Equivalency of Remote Objects with Local Stub section). It would have been obvious the Java object could subscribe and handle events through its Java stub because Java can be implemented in distributed system using remote method invocation to invoke object on different process space.

As to claim 7, Riehle does not explicitly teach registering the Listener instance with an RMI registry, the RMI registry executing in a third Java Virtual Machine, the Notifier instance retrieving a reference to the registered Listener instance when inserting the Listener object stub to the list of Listener objects. Sun teaches (Registry Interfaces section) registering the Listener instance with an RMI registry (The RMI system ... by simple names), the RMI registry executing in a third Java Virtual Machine (Any server process can ... standalone), the Notifier instance retrieving a reference to the registered Listener instance when inserting the Listener

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object stub to the list of Listener objects (A simple bootstrap name server ... particular host and port; Locating Remote Objects section).

As to claim 8, Riehle as modified by Sun teach the step of creating in the Listener object stub remotely calls the defined method in the Listener instance through the retrieved reference upon receiving the event from the Notifier instance (Collaborations of Riehle; page 6 and Locating Remote Objects section; Sun Microsystems)

As to claims 3 and 11, see rejections of claims 6-8 above.

As to claims 14-16, see rejections of claims 6-8 above.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Couturier et al. (U.S. 6,073,184) teaches "Method of transmitting a notification to a receiver from plural notification services in a distributed application network, and a network for implementing the method".
- Waldo et al. (U.S. 6,185,611 B1) teaches "Dynamic lookup service in a distributed system".
- Sondur et al. (U.S. 6,282,568 B1) teaches "Platform independent distributed management system for manipulating managed objects in a network".
- Wollrath et al. (U.S. 6,463,446 B1) teaches "Method and apparatus for transporting behavior in an event-based distributed system".

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Friday, 9:00AM - 5:00PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, DC 20231

**Or fax to:**

- AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- OFFICIAL faxes must be signed and sent to (703) 746-7239.
- NON-OFFICIAL/DRAFT faxes should not be signed, please send to (703) 746-7140.

Diem Cao  
February 19, 2003



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